## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 32. (cancel)

33. (currently amended) The light-emitting device comprising:

a compound semiconductor layer having a light-emitting layer portion, being configured so that a first main surface of which serves as a light extraction surface;

wherein the light-emitting layer portion is configured as having a double heterostructure in which a first-conductivity-type cladding layer, an active layer and a second-conductivity-type cladding layer, all of these layers being composed of (Al<sub>x</sub>Ga<sub>1-x</sub>)<sub>y</sub>In<sub>1-y</sub>P (where,  $0 \le x \le 1$  and  $0 \le y \le 1$ ), are stacked in this order; and

a device substrate bonded on a second main surface side of the compound semiconductor layer while placing a main metal layer in between, the main metal layer having a reflective surface for reflecting light from the light-emitting layer portion back towards the light extraction surface side; further comprising:

a diffusion-blocking layer interposed between the device substrate and the main metal layer, being composed of a conductive material, and provided for blocking diffusion of any device-substrate-derived components towards the main metal layer; S/N: 10/718,789

Docket No.: SUG-176-USAP

further comprising a substrate-side contact metal layer interposed between the diffusion-blocking layer and the device substrate, intended for reducing contact resistance between the device substrate and the diffusion-blocking layer; and

wherein the main metal layer is composed of an Au-base Ag-base layer having [[Au]] Ag as a major component, at least in a portion including the interface with the diffusion-blocking layer, and the device substrate is a Si substrate.

34. (original) The light-emitting device as claimed in Claim 33, wherein the diffusion-blocking layer is a metal layer for blocking diffusion, having either Ti or Ni as a major component.

35. (original) The light-emitting device as claimed in Claim 34, wherein the metal layer for blocking diffusion has a thickness of 1 nm to 10  $\mu$ m, both ends inclusive.

36. (currently amended) The light-emitting device as claimed in Claim 33, wherein the device substrate is an n-type Si substrate, and further comprises a substrate-side contact metal layer interposed between the diffusion-blocking layer and the Si substrate, being composed of an [[AuSb]] AgSb alloy or an [[AuSn]] AgSn alloy, and being intended for reducing contact resistance between the Si substrate and the diffusion-blocking layer.

37. (original) The light-emitting device as claimed in Claim 33, wherein the Au-base

layer composes the reflective layer.

## 38. (currently amended) A light-emitting device comprising:

a compound semiconductor layer having a light-emitting layer portion, being configured so that a first main surface of which serves as a light extraction surface;

wherein the light-emitting layer portion is configured as having a double heterostructure in which a first-conductivity-type cladding layer, an active layer and a second-conductivity-type cladding layer, all of these layers being composed of ( $Al_xGa_{1-x}$ ) $_yln_{1-y}P$  (where,  $0 \le x \le 1$  and  $0 \le y \le 1$ ), are stacked in this order; and

a device substrate bonded on a second main surface side of the compound semiconductor layer while placing a main metal layer in between, the main metal layer having a reflective surface for reflecting light from the light-emitting layer portion back towards the light extraction surface side; further comprising;

a diffusion-blocking layer interposed between the device substrate and the main metal layer, being composed of a conductive material, and provided for blocking diffusion of any device-substrate-derived components towards the main metal layer; wherein, the main metal layer is composed of an **Au-base** Ag-base, composed of pure **[[Au]]** Ag, or an **[[Au]]** Ag alloy having a ratio of **[[Au]]** Ag content ratio of 95% by mass or above, at least in a portion including the interface with the diffusion-blocking layer, and the device substrate is a Si substrate; and

wherein an Ag-base layer interposed between the Au-base layer and the compound semiconductor layer, and having Ag as a major component, composes the

reflective layer.

39 – 90. (cancel)

## 91. (new) The light-emitting device comprising:

a compound semiconductor layer having a light-emitting layer portion, being configured so that a first main surface of which serves as a light extraction surface;

wherein the light-emitting layer portion is configured as having a double heterostructure in which a first-conductivity-type cladding layer, an active layer and a second-conductivity-type cladding layer, all of these layers being composed of (Al<sub>x</sub>Ga<sub>1-x</sub>)<sub>y</sub> $\ln_{1-y}P$  (where,  $0 \le x \le 1$  and  $0 \le y \le 1$ ), are stacked in this order; and

a device substrate bonded on a second main surface side of the compound semiconductor layer while placing a main metal layer in between, the main metal layer having a reflective surface for reflecting light from the light-emitting layer portion back towards the light extraction surface side; further comprising:

a diffusion-blocking layer interposed between the device substrate and the main metal layer, being composed of a conductive material, and provided for blocking diffusion of any device-substrate-derived components towards the main metal layer;

further comprising a substrate-side contact metal layer interposed between the diffusion-blocking layer and the device substrate, intended for reducing contact resistance between the device substrate and the diffusion-blocking layer;

wherein the main metal layer is composed of an Ag-base layer and an Au-base

layer having Au as a major component, at least in a portion including the interface with the diffusion-blocking layer, and

the device substrate is a Si substrate.

- 92. (new) The light-emitting device as claimed in Claim 91, wherein the diffusionblocking layer is a metal layer for blocking diffusion, having either Ti or Ni as a major component.
- 93. (new) The light-emitting device as claimed in Claim 92, wherein the metal layer for blocking diffusion has a thickness of 1 nm to 10  $\mu$ m, both ends inclusive.
- 94. (new) The light-emitting device as claimed in Claim 91, wherein the device substrate is an n-type Si substrate, and further comprises a substrate-side contact metal layer interposed between the diffusion-blocking layer and the Si substrate, being composed of an AuSb alloy or an AuSn alloy, and being intended for reducing contact resistance between the Si substrate and the diffusion-blocking layer.
- 95. (new) The light-emitting device as claimed in Claim 91, wherein the Ag-base layer composes the reflective layer.